



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
Shenggao Liu et al.)	Group Art Unit: 1752
Application No.: 10/764,407)	Examiner: Hamilton, Cynthia
Filed: January 23, 2004)	Confirmation No.: 9511
For: PHOTORESIST COMPOSITIONS)	
COMPRISING DIAMONDOID)	
DERIVATIVES)	

RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In complete response to the Office Action dated March 17, 2005, Applicants submit herewith a two month extension of time extending the period for response from April 17, 2005 to June 17, 2005 and the following response.

In the Office Action, the Examiner sets forth a restriction requirement among ten groups of claims as follows:

Group I: Claims 1-8, drawn to a polymerizable diamantyl monomer, classified in class 560, subclass 116;

Group II: Claims 9-16, drawn to a polymerizable triamantyl monomer, classified in class 560, subclasses 116;

Group III: Claims 17-24, drawn to a polymerizable, diamondoid-containing monomer having the formula $Pg - D - (R)_n$, wherein D is a diamondoid nucleus selected from the group consisting of tetramantane, pentamantane, hexamantane, heptamantane, octamantane, nonamantane, decamantane, and undecamantane, classified in class 560, subclass 116;

Group IV: Claims 25-26, drawn to a polymer, classified in class 526, subclass 281;

Group V: Claims 27-42, drawn to a method of forming a patterned layer and pattern made, classified in class 430, subclass 326;

Group VI: Claims 43-83, drawn to a positive-working photoresist composition classified in class 430, subclass 270.1;

Group VII: Claims 84-93, drawn to a method of preparing hydroxylated diamantanes, classified in class 568, subclass 818.

Group VIII: Claim 94, drawn to a method of preparing diamantane methacrylate, the method comprising the step of:

- a) adding methacryloyl chloride to mono-hydroxylated diamantane and triethylamine to form a reaction mixture;
- b) adding an additional amount of methacryloyl chloride and 4-dimethylaminopyridine to the reaction mixture of step a); and
- c) recovering diamantane methacrylate from the reaction mixture of step b), classified in class 560, subclass 116.

Group IX: Claim 95, a method of preparing mono-hydroxylated diamantane methacrylate, the method comprising the steps of:

- a) adding methacryloyl chloride to di-hydroxylated diamantane and triethylamine to form a reaction mixture; and
- b) recovering mono-hydroxylated diamantane methacrylate from the reaction mixture of step a), classified in class 560, subclass 116.

Group X: Claim 96, a method of preparing mono-hydroxylated diamantane methacrylate, the method comprising the steps of:

- a) adding methacryloyl chloride to di-hydroxylated diamantane and methacrylic acid to form a reaction mixture;

b) adding dicyclohexyl carbodiimide and 4-dimethylaminopyridine to the reaction mixture of step a); and

c) recovering mono-hydroxylated diamantane methacrylate from the reaction mixture of step b), classified in class 560, subclass 116.

Applicants respectfully traverse the restriction requirement as set forth in Groups I through X. Applicants respectfully assert that the inventions of Groups I through X can be examined together. Applicants respectfully submit that the inventions of Groups I – X are related and that a proper search of the claims of one group should, by necessity, require a proper search of claims of other groups.

Applicants submit that any nominal burden placed upon the Examiner to search accordingly to determine the art relevant to Applicants' overall invention is significantly outweighed by the public's interest in not having to obtain and study many separate patents in order to have available all of the issued patent claims covering Applicants' invention. The alternative is to proceed with the filing of multiple applications, each consisting of generally the same disclosure, and each being subjected to essentially the same search, perhaps by different Examiners on different occasions. This process would place an unnecessary burden on both the Patent and Trademark Office and on the Applicants.

Regardless of whether the ten inventions are independent or distinct, Applicants respectfully assert that the Examiner need not have restricted the application. MPEP § 803 requires that "[i]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." Therefore, it is not mandatory to make a restriction requirement in all situations where it would be deemed proper.

In the interest of economy, for the Office, for the public-at-large, and for Applicants, reconsideration and withdrawal of the restriction requirement are requested.

Nevertheless, in order to comply with the requirements of 37 C.F.R. § 1.143, Applicants elect, with traverse, to prosecute the invention of Group VI, namely claims 43-83, for prosecution in the above-identified application.

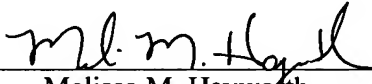
Applicants have no intention of abandoning any non-elected subject matter and expressly reserve the right to file one or more continuation and/or divisional applications directed to the non-elected subject matter.

Applicants earnestly solicit favorable consideration of the above response and early passage to issue of the present application. In the event that there are any questions relating to this application or this response, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

In the event any further fees are due to maintain pendency of this application, the Examiner is authorized to charge such fees to Deposit Account No. 02-4800.

Respectfully submitted,

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